TV PICTURE TUBE ADAPTER
For Use With
MODELS 70 AND 71 NRI PROFESSIONAL TUBE TESTER

The TV Picture Tube Adapter adapts the NRI Model 70 and Model 71 Tube Testers (through the octal socket of these Testers) to Emission and short-checking of Standard Picture Tubes which incorporate the universal RETMA 12C, 12D, 12G, 12L, 12M, and 12N basings. Does not test types 3RP1, 5UP1, and similar types of tubes used in cathode ray oscilloscopes.

The internal wiring of the Adapter Cable is as follows:

	Fil	G_1	Fil	Cath	G_2	HV Anode	Focus Electrode
Duodecal Socket Pin #:-	1	2	12	11	10	Clip	6
Octal Plug Pin #:-	1	2	8	7	6	4	5

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TEST PROCEDURE FOR NRI MODEL 70

(1) Set Model 70 Controls as follows:

A	B	C	D	E	F
45	7	3	1	-	-

(2) If the picture tube to be tested is in the TV Set, MAKE SURE SET IS TURNED OFF before attempting any tests.

IMPORTANT:- The HV lead of the TV Set and the HV cap of the tube should be shorted to ground to discharge any voltage that might be present before proceeding to Step 3.

(3) Plug the Adapter Cable into the octal socket of the Model 70. Remove the TV Receiver socket from the picture tube and attach the Duodecal Socket of the Adapter to the picture tube. Remove the H. V. lead from the picture tube and attach alligator clip of the Adapter to the tube.

(4) Rotate the Model 70 "Line" control and Adjust the Line.

(5) Check "Filament Continuity" by throwing lever 8 to "F" and then back to "COMMON", checking for neon glow, (same as for receiving tubes).

(6) Check for shorts by throwing levers 2, 4, 6 and 7 individually to "F" and then back to "Common", same as for receiving tubes:- Shorts or leakage will be indicated by a steady neon glow as each lever is thrown into "F" position. Include Lever 5 for electrostatic Focus types.

(7) For Emission Test throw Lever #2 to "F" and depress "Press to Read" Button.

IMPORTANT NOTE: Emission is read on the lower "Diodes Only" arc. Reject point is 20 on the meter scale.

INTERPRETING THE RESULTS OF THE TV PICTURE TUBE TESTING ADAPTER. Be sure that you read meter on the "DIODE SCALE". Use the adapter to test a number of picture tubes which are known to be in good operating condition. This will acquaint you with the results to be expected. Generally speaking, the adapter should be used as a servicing aid and not necessarily as the final factor in deciding whether or not to discard a picture tube. The adapter measures the cathode emission ability of a picture tube and tests it for shorts and filament continuity. However, the adapter does not duplicate the actual operating conditions of the picture tube in the receiver. (BE SURE TO READ ON THE "DIODES ONLY" scale).

TEST PROCEDURE FOR NRI MODEL 71

(1) Set Model 71 Controls as follows:

A	B	C	D
1	8	16	3

(2) If the picture tube to be tested is in the TV Set, MAKE SURE SET IS TURNED OFF before attempting any tests.

IMPORTANT:- The HV lead of the TV Set and the HV cap of the tube should be shorted to ground to discharge any voltage that might be present before proceeding to Step 3.

(3) Plug the Adapter Cable into the octal socket of the Model 71. Remove the TV Receiver socket from the picture tube and attach the Duodecal Socket of the Adapter to the picture tube. Remove the HV lead from the picture tube and attach the alligator clip of the Adapter to the tube.

(4) Rotate the Model 71 "Adjust Line" control and Adjust the Line.

(5) Check "Filament Continuity" by throwing lever #1 down to "TEST" position and then back to position "A". If the filament is OK, the neon lamp will glow while this lever is in the "TEST" position. (Ignore MOMENTARY NEON FLASHES) - If no glow is obtained, the filament is open and no further tests need be made.

(6) Check for Cathode short by throwing lever #7 up to "TEST" position and then back to "COMMON". The neon lamp should not glow when this lever is in the "TEST" position. If glow is obtained, a Cathode short exists and the tube should be rejected.

(7) Next, throw levers 2, 4, 5 and 6 up to "TEST" row, one by one, and watch the neon lamp as each lever is thrown to this row. Neon should NOT glow (disregard any MOMENTARY neon flashes). If a glow is obtained, a shorted element is indicated and the tube should be rejected.

(8) With Levers 2, 4, 5 and 6 up in the "TEST" row, press the "READ METER" button and read the 0-100 linear Meter scale. IGNORE THE THREE-COLORED ARC WHEN TESTING PICTURE TUBES!

QUESTIONABLE TUBES may read between 10 and 15.

MOST DEFECTIVE (DARK-IMAGE) TUBES will read below 10.

MOST GOOD TUBES will read above 15.

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INSTRUCTIONS FOR USE OF THE NRI TV PICTURE TUBE ADAPTER With Model 66, 67, 68, and 69 NRI Professional Tube Testers

Plug the adapter into the octal socket of your tube tester.

The same procedure is followed as given in your tube tester instruction manual for all other tubes. All controls should be set according to settings below before connecting adapter to picture tube.

The duodecal socket of the adapter is attached to the picture tube, and the alligator clip to the HV anode of the picture tube.

The wiring of the test cable is as follows:

	F	G_1	F	K	G_2	HV Anode	Focus Electrode
Duodecal Socket Pin #	1	2	12	11	10	Clip	6
Octal Plug Pin #	1	2	8	7	6	4	5

For short test, value test, open element test, and filament continuity test, use the same procedure as outlined in the tube tester instruction manual. Open element test in general cannot be made on elements other than the first grid-pin 2 (lever 2) on tubes listed.

Settings for Model 67, 68, and 69 NRI Tube Testers

A	B	C	Up	Down
1	6.3	23	2456	1 7

Settings for Model 66 NRI Tube Tester

A	B	C	Up	Down
1	6.3	23	1	7 8

*Underlined figures indicate dark-face type.

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